



Safe Handling of Empty Containers

Ecology Fact Sheet

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The *Dangerous Waste Regulations* describe a container as, “any [moveable] device in which a material is stored, transported, treated, disposed of, or otherwise handled.” This may include cans, bottles, jars, drums, barrels, totes, bags, liners, inner liners, and large containers mounted on a truck or a rail car.

When is a container “empty”

Ecology recognizes that it is difficult to remove all contents of a container. The term “empty” applies whenever all contents of a container have been removed by normal practical means, such as inverting and draining, shaking, scraping, or scooping. But after all common methods are used, the container will be considered empty when the following applicable conditions are met:

- ✓ Small containers (less than 110 gallons), are empty when no more than one inch or 3 percent of container volume remains.
- ✓ Large containers (greater than 110 gallons), are empty when no more than 0.3 percent of container volume remains.
- ✓ Containers holding compressed gases are empty when the pressure inside the container is equal - or nearly equal - to atmospheric pressure.

Containers of acutely hazardous waste, toxic extremely hazardous waste, or pesticides marked with danger or warning labels, must be rinsed at least three times with water or solvent, depending on the original contents. You must then reuse or properly dispose of the rinse water.

Example

A 55 gallon drum is empty when less than one inch of material remains in the drum. A 3000 gallon vac truck is empty when less than 9 gallons of material remains inside.

Storing empty containers

Store your empty containers in an area protected from the weather and where employees cannot accidentally add waste material. Rain and melted snow can collect inside a container you thought was empty and create a large volume of potentially hazardous waste. If stored upright, make sure the container is covered, bungs are tightly in place, all labels are removed and the container is marked, “Empty”. It is also a good idea to add the name of the product last stored in the container and the date it was emptied.

Proper disposal methods

First, you may want to reuse the empty containers on-site. You must remove **all** free product. Keep rinse water to a minimum. Materials like solvents, pesticides and oil-based paints mixed with rinse water need to be

designated and disposed according to local, state, and federal regulations. Do not dump product or rinse water on the ground or down the drain. Call Ecology if you have questions.

If on-site reuse is not an option for you, and your larger metal containers are completely empty, they may be recycled through a drum reconditioning firm. A list of companies that may want empty drums, or may have empty drums available, is located in the Industrial Materials Exchange Catalog. To obtain a free catalog, call (206) 296-4899. The list below names four companies that recondition used drums:

Palex Container Systems - Seattle	(206) 763-2345
Seattle Barrel - Seattle	(206) 622-7218
HRI Container - Spokane	(509) 468-9688
Meyers Container - Portland	(800) 406-9377

If you have at least one hundred barrels, Northwest Cooperage will schedule a pickup if a driver is making a delivery in the area. The other option is to send the barrels overland by common carrier. Northwest Cooperage recommends this, while Seattle Barrel requires this. The barrels must be empty, with lids off but included, and must follow federal Environmental Protection Agency and Material Safety Data Sheet guidelines for shipment.

HRI Container will accept clean containers from 5 to 275 gallons in size. The minimum requirement is ten containers and they will take back any containers they sell. All containers must be drained and clean.

Scrap metal dealers may also take metal drums. Check the yellow pages in your local telephone directory under *Scrap Metal - Process and Recycle* for a list of dealers. Most local permitted solid waste landfills also take empty containers. Contact the landfill first to see if they will accept the containers and ask for any requirements they might have. Plastic and fiber drums are also available.

Safety Note

Wear appropriate protective clothing when handling chemicals and emptying containers.

Container shipping rules

United States Department of Transportation regulations apply whenever you transport hazardous materials. However, unused containers, or those cleaned or with minimal residue, may be exempt from federal rules under certain conditions. For details, refer to the federal Department of Transportation regulations found in Title 49 of the Code of Federal Regulations, parts 171 through 180.

Fire codes

In 1991, the Uniform Fire Code defined an empty container as being free from any residual hazardous materials or vapors. Check with your local fire department or fire district for any additional requirements, such as for containers previously used for storing flammable and combustible liquids.

For more information

Contact a Hazardous Waste Specialist at your nearest Ecology regional office to get more information on the proper way to manage your empty containers.

Central Regional Office - Yakima	(509) 575-2490
Eastern Regional Office - Spokane	(509) 456-2926
Northwest Regional Office - Bellevue	(425) 649-7000
Southwest Regional Office - Lacey	(360) 407-6300

The Department of Ecology is an equal opportunity agency. If you have special accommodation needs, or require this document in an alternate format, call the Hazardous Waste and Toxics Reduction Program at (360) 407-6700 (Voice) or (360) 407-6006 (TDD).

